

REMARKS

The foregoing Amendment limits the scope of compounds included in component (d)(III) in Applicants' claims and is intended mainly to obviate the rejection of certain claims under 35 USC § 112.

Rejection under 35 USC § 112

Claim 17 has been rejected under the second paragraph of 35 USC § 112 on the ground that certain substances included within the definition of component (b) overlap with substances included in the definition of component (d). Applicants contend that the term "esters" in component (d)(III) means esters of carboxylic acids containing from 6 to 30 carbon atoms. As such, there is no overlap with the mono- and poly-glyceryl esters of component (b). Nevertheless, in order to make this definition abundantly clear, Applicants are limiting the carboxylic acids in component (d)(III) to lauric acid, oleic acid, palmitic acid, ricinoleic acid and stearic acid. Claims 17 and 20 have been amended accordingly and it is submitted that this Amendment will obviate any ground of rejection under 35 USC § 112.

Rejection over Bassam US Patent No. 5,849,264

In paragraph 6 of the Office Action, all of the claims have been rejected as obvious over Bassam US Patent No. 5,849,264. Although the rejection is based on 35 USC § 103(a), the Examiner's remarks appear to be focused primarily on anticipation. Applicants continue to urge that Bassam would not properly function as an indication of either anticipation or obviousness. Applicants also wish to point out that the Examiner's reference to Applicants' component (d) as comprising diethyl orthophthalate is not longer appropriate; group (IV) has previously been deleted from component (d).

One of the principal features of Applicants' claimed invention is the ratio of component (d) to component (b). In Applicants' claims, the maximum amount of component (b) in the subject compositions is 1.0% and the maximum amount of component (d) is 10% of the amount of component (b). Thus, in terms of the entire composition, component (d) is present at a maximum amount of only 0.1%. The Bassam reference discloses certain substances qualifying

as Applicants' component (b) and certain substances qualifying as Applicants' component (d). These substances – along with many others – are lumped together in the Bassam reference as “solvents”. Applicants' claims are directed to methods for enhancing the unipolar charge imparted to droplets of an emulsion when said emulsion is discharged from an aerosol spray device. The key to enhancing the unipolar charge is the choice of component (b), the choice of component (d) and, very importantly, the ratio of (d) to (b). The Bassam reference does not recognize any particular properties as possibly resulting from a combination of “solvents” falling within the parameters of Applicants' component (b) and Applicants' component (d). The reference discloses many examples of compositions comprising “solvents” that fall within the definition of Applicants' component (b) but there are no specific examples showing any component (d) “solvent”. Thus, there is no combination of “solvents” disclosed in the Bassam reference that would qualify as a mixture of Applicants' components (b) and (d). Needless to say, there is no indication of any ratio between said components. In these circumstances, Applicants' claims would not have been obvious over Bassam. As far as requiring Applicants to show the criticality of the particular (d)-to-(b) ratio, there is no need to provide evidence of such criticality since the combination itself is not disclosed in the reference.

Rejection over Stopper US Patent No. 4,536,323

In paragraph 7 of the Office Action, the Examiner rejects Claims 17-19, 25-28, 34 and 35 as obvious over Stopper US Patent No. 4,536,323. It is again respectfully pointed out that, whilst Stopper is concerned with methods for reducing the flammability of aerosols, Applicants are concerned with enhancing the electrostatic charge imparted to emulsion droplets discharged from an aerosol spray device. Applicants submit that Stopper is not a proper indication of obviousness. The Examiner acknowledges that Applicants have disclosed “some variation of the compositions of the reference” and asserts that “some variation of the properties [of the reference] would have been expected”. He concludes with a statement that Applicants “have not shown the properties to be critical to the invention”; presumably, these “properties” are Applicants' properties. However, we are not concerned with mere properties here. Applicants have disclosed and claimed methods which have no relationship to the methods disclosed in the

reference. Applicants are concerned with enhancing the electrostatic charge imparted to droplets discharged from an aerosol spray device. As indicated in paragraphs 0002-0006 of the published application, charged particles improve the effectiveness of the products contained in the spray device. Stopper, on the other hand, is concerned only with matters of safety – in particular, reducing the flammability of spray emulsions.

The Examiner states that sodium lauryl sulphate, as disclosed in the table in column 4 of the reference “would fulfill the conductivity criteria of [Applicants’] claim 17”. However, there is nothing in the reference that would support this statement – either as to sodium lauryl sulphate taken alone or as to the entire composition disclosed in said table.

The Examiner asserts that Applicants’ claims set forth concentrations of the emulsifier package of about 1.0% of non-ionic surfactant and an anionic surfactant of 10% based on the non-ionic surfactant. This is not an unreasonable statement in itself since Applicants’ component (d)(I) can include some anionic surfactants. The Examiner notes that Claim 1 of the Stopper reference recites a minimum of 3% of a mixed surfactant system with the implication that Applicants’ “about 1%” would also include a concentration of “about 3%”. Applicants contend that an upper limit of “about 1%” cannot be stretched to include an amount that is three times the recited 1%, particularly since the highest concentration of non-ionic surfactant – component (b) – disclosed in Applicants’ specific examples is 1%. The basis for the Examiner’s assertion that “about 1%” should include concentrations of about 3%, seems to be Applicants’ statement – in Paragraph 0010 of the published application – that Applicants’ non-ionic surfactant can go up to about 10%. However, the Examiner appears to be losing sight of the fact that Applicants’ obligation in this regard is to differentiate the claims being prosecuted, not to differentiate Applicants’ broad disclosure. Therefore, there is no basis to assert that “about 1%” can include the 3% recited by the Stopper reference.

Rejection over Fox WO 99/21659 in view of Stopper or Bassam

In paragraph 8 of the Office Action, the Examiner has rejected all of the claims as obvious over WO 99/21659 in view of Stopper or Bassam.

In paragraph 0005 of the published application, reference is made to WO 97/28883 as describing an aerosol spray device constructed so that a unipolar charge is imparted to sprayed-out particles. The device disclosed in WO 99/21659 is similar and can be used in connection with the methods claimed by Applicants. Essentially, where Applicants' claims differ from the Fox disclosure is in the contents of the aerosol spray device. As noted in paragraph 0007 of Applicants' published application, one of the features of Applicants claimed invention is that, by careful selection of the components of the composition contained in the aerosol spray device, it is possible to enhance the charge imparted liquid droplets without requiring any special features in the construction of the aerosol spray head. As previously pointed out, the content of Applicants' compositions would not have been obvious over Bassam. And, as previously pointed out, the content of Applicants' compositions would not have been obvious over Stopper because, inter alia, the Stopper reference is to a utility having no relationship to Applicants' utility.

The Examiner points to the paragraph of WO 99/21659 beginning at page 7, line 32. The reference indicates that changes in product formulations can affect charging levels and says that a mixture or an emulsion of hydrocarbon and water will carry a higher charge-to-mass ratio than either water alone or a hydrocarbon alone. Applicants are not claiming the broad concept that changes in formulation can influence the amount of a unipolar charge. Rather, Applicants' claims are directed to the specific concept that a combination of a non-ionic surfactant of component (b) with component (d) in the specific recited limited ratio will enhance unipolar charge. This is not disclosed in WO 99/21659 or in Bassam or in Stopper. Thus, combining Fox with either Bassam or with Stopper is an improper combination and, even if combined, would not lead to Applicants' claimed methods.

Double Patenting Rejection

In paragraph 10 of the Office Action, all of the claims in this application have been provisionally rejected on the ground of obviousness-type double patenting over the claims of US Patent Application No. 11/638281 (Published as US 2007/0093558A1). In order to obviate this provisional rejection, Applicants are submitting a Terminal Disclaimer.

CONCLUSION

In view of the foregoing amendment, these remarks and the enclosed Terminal Disclaimer, it is believed that all claims in this application are now in condition for allowance. Favorable action is therefore requested.

Please apply any charges or credits to deposit account 06-1050, referencing 08291-716001.

Respectfully submitted,

Date: 24 April 2008

/Frederick H. Rabin/
Frederick H. Rabin
Reg. No. 24,488

Fish & Richardson P.C.
225 Franklin Street
Boston, MA 02110
Telephone: (617) 542-5070
Facsimile: (617) 542-8906